# **BAYOU BONFOUCA**

**LOUISIANA** 

EPA ID# LAD980745632

#### **EPA REGION 6**

CONGRESSIONAL DISTRICT 01

St. Tammany Parish Slidell

> Updated July 21, 2000

# **Site Description**

Location: ! The Bayou Bonfouca Superfund site is located in Slidell, Louisiana on the

north shore of Lake Ponchartrain and includes the former American Creosote

Works Plant and a portion of scenic Bayou Bonfouca.

! The site is south of West Hall Avenue in Slidell and north of and adjacent to

Bayou Bonfouca (See Site Map).

**Population:** ! Approximately 26,000 residents live in the surrounding community.

Setting: ! The site was used for commercial operations involving the treatment of wood

products with creosote since the late 1800s.

! The site encompasses more than 54 acres and associated Bayou sediments.

! There were eight highly contaminated creosote areas at the site.

The northern half of the site is heavily wooded.

! The site is bordered on the east by a drainage ditch, on the west by a creek,

and on the south by Bayou Bonfouca.

! Site-related contaminants have been found in the bayou.

! Nearest residence potentially impacted by the site is approximately 400 feet

from the site, across the bayou to the southwest.

Nearest drinking water well is approximately 1/4 mile northeast of the site.

**Hydrology**: Seven stratigraphic layers were encountered in the first 60 feet during the

Remedial Investigation of the site. (Interbedded sands, clays, and silts)

! Three ground water systems were encountered at the site, including a surficial

aquifer, a shallow artisan aquifer at 30 feet, and a deep artisan aquifer at 60 ft.

! The elevation of the 100-year floodplain is 9 feet mean sea level (MSL). Most

of the site would be inundated by a flood of this elevation.

#### Wastes and Volumes

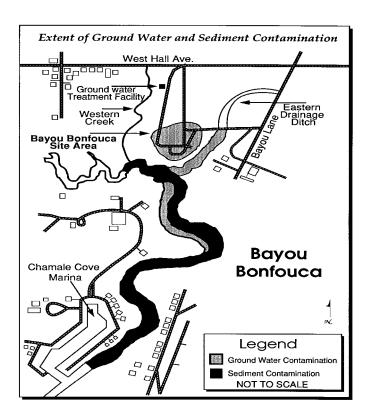
! The principal pollutants at the Bayou Bonfouca Superfund site are creosote compounds, or Polynuclear Aromatic Hydrocarbons (PNAs)

# Site Assessment and Ranking

#### NPL LISTING HISTORY

Site HRS Score: 29.78 Proposed Date: 12/30/82 Final Date: 9/08/83 NPL Update: Original

# Site Map and Diagram



## **The Remediation Process**

#### Site History:

- ! A creosote plant began operating at the site about 1882.
- ! Over the years, the plant operated under several owners, including Gulf States Creosoting, American Creosote, and American Creosote Works, with property ownership resting finally with the Braselman Corporation.
- ! Numerous releases of creosote occurred during the years of operation.
- ! July August 1985, the Potentially Responsible Party (PRP), under an EPA Administrative Order, fenced the site.

#### **Health Considerations:**

- ! Approximately 1.5 miles of scenic Bayou Bonfouca was biologically sterile due to severe creosote contamination in bayou sediments and in the water column.
- ! Creosote contamination was so concentrated that it caused 2<sup>nd</sup> degree chemical burns to divers, injured or killed aquatic animals and waterfowl, and posed a significant hazard to recreational users.

#### **Record of Decision**

Signed: March 31, 1987 Incorporated the Source Control ROD of August 15, 1985

- ! The Bayou Bonfouca Superfund site remedy included:
  - " Dredging of Bayou Bonfouca contaminated sediments
  - Onsite incineration of contaminated soils and sediments
  - Extraction and treatment of contaminated ground water
- **!** Explanation of Significant Differences released February 5, 1990 showed significantly greater waste volumes than previous estimates resulting in remedy selection of onsite incineration of wastes after careful examination of biotreatment, underwater capping, and other alternatives.
- ! Estimated Cost: \$140 Million Dollars

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- ! Community Involvement Plan: Developed 04/84, revised 08/85
- **!** Open houses and workshops: 04/85, 06/86, 9/6/89, 7/12/90, 12/5/90, 6/26/91, 11/11/92, 12/8/93, 1/13/93, 3/3/93, 5/19/93, 7/21/93, 9/93, 11/93, 4/94, 6/94, 8/94, 12/94, 2/95, 1/96
- ! Original Proposed Plan Fact Sheet and Public Meeting: 02/87
- ! Original ROD Fact Sheet: 07/87; Explanation of Significant Difference (ESD): 1/90
- ! Milestone Fact Sheets: Update 03/88,08/89,06/90,12/90 ESD decision 1/90, 1/93, 9/93, 11/93, 2/94, 5/94, 7/94, 9/95
- ! Citizens on site mailing list: 318
- ! Constituency Interest: High interest at site. Some nearby residents strongly opposed the on site landfill. Many residents strongly supportive of EPA efforts.
- ! Site Repository: St. Tammany Parish Library, Slidell Branch, Slidell, Louisiana
- ! Commemorative Activities: 6/91 Ground Water Treatment Plant Completion; 9/95 Source Control Construction Completion

#### **Technical Assistance Grant**

- ! Availability Notice: 02/89, 5/94, 6/94
- Letters of Intent Received: Slidell Working Against Major Pollution (SWAMP), 5/94;

Earth Beautiful Foundation, 6/94

- ! Final Application Received: 12/94! Grant Award: 12/22/94 to SWAMP
- ! Technical Advisors Selected: 4/20/95 (Wilma Subra & Joel Hirschhorn)

! Current Status: Active TAG. Hirshhorn terminated in mid-1999. Grantee retained Subra Company.

# Contacts —

- ! Remedial Project Manager: Katrina Coltrain (EPA) 214-665-8143, Mail Code: 6SF-LP
- ! State Contact: Rich Johnson (LDEQ) 225-765-0487
- ! Community Involvement: Katrina Coltrain (EPA) 214-665-8143, Mail Code: 6SF-LP
- ! Attorney: James Turner (EPA) 214-665-3159, Mail Code: 6SF-DL
- ! **Prime Contractor:** U.S. Army Corps of Engineers/IT Corporation and OHM Corporation

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- ! United States v Braselman Corporation, et. al., C.A. # 96-0872, filed March 11, 1996 for cost recovery under Section 107 of CERCLA. Case is active.
- ! Consent Decree: Kerr-McGee Corp/Kerr-McGee Chemical Corp. Entered June 25, 1997 Settlement: \$20 Million
- ! Consent Decree: Fleming American Investment Trust, plc. Entered July 31, 1997 Settlement: \$3.6 Million

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# Source Control Remedy

- Incineration operations began in November 1993 and were completed on July 28, 1995, <u>18</u> months ahead of schedule due to performance based contracting methods and the cooperative relationship between EPA, the Citizens of Slidell, the Corps of Engineers, and the incineration Contractor(IT-OHM).
- ! Demobilization of the incinerator was completed in December 1996, after completion of Southern Shipbuilding Superfund Site (a nearby Superfund site) waste treatment.
- ! A Preliminary Closeout Report was issued for the Source Control Remedial Action (sediment excavation and incineration) on September 30, 1997.

# **Groundwater Remedy**

- ! Ground water pumping and treatment began in June 1991 and has reduced the volume of contamination and prevented further migration.
- Approximately 9,000,000 gallons of contaminated ground water has been extracted and treated with approximately 26,000 gallons of creosote oil recovered.
- A statutory 5 Year Review of groundwater cleanup activity was completed in September 1996, which recommended continued ground water recovery and treatment and an evaluation of treatment system performance.
- In September 1997, EPA completed a Performance Evaluation Report for the groundwater extraction and treatment system. The report indicated that modifications to the current groundwater recovery and treatment system are needed to protect the integrity of the Source Control remedy. EPA is currently evaluating alternatives for this action.

- Long Term Remedial Action for groundwater contamination will continue to be administered by EPA through July, 2001.
- ! Ground water remedial activity began January 17, 2000, which will include installation of additional groundwater recovery wells along Bayou Bonfouca.
- ! Well installation and ground water treatment plant upgrades have been completed. The site is currently in the shakedown period of construction.

#### **Environmental and Economic Benefits**

- **!** EPA's remedial action has detoxified over 170,000 cubic yards of contaminated sediment, and treated massive amounts of contaminated ground water. A mile and a half of the Bayou has been restored for aquatic life, as well as human recreational and residential use. A public boat launch was recently installed by the City to allow public access to this beautifully restored area.
- ! The Site property and buildings were donated to the City of Slidell by Brasselman Corporation and EPA for future use by the city as a city maintenance yard, sewage control facility during flood events, and possibly as a park. The keys to the property were transferred to the City in January, 1997.
- ! Approximately \$12 Million dollars was spent by EPA contractors for subcontracting services within St. Tammany Parish.
- Between 80 and 90% of field and office staff were locally hired, trained, and employed by EPA Contractors or sub-contractors.